AMENDMENTS TO THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A system for evaluating a simulation design comprising:

    a reference simulator configured to execute a simulation image to obtain golden data, wherein the simulation image is a compiled version of the simulation design;

    a test simulator configured to execute the simulation image to obtain test data, wherein the test simulator is associated with a first implementation of the simulation design and the reference simulator is associated with a second implementation of the simulation design; and

    a comparator configured to generate a comparison result by comparing a portion of the golden data to a portion of the test data before the execution of the simulation image on the test simulator has completed,

    wherein user data is used by the comparator to select the portion of the golden data and the portion of the test data, wherein the user data comprises a plurality of mapping rules used by the comparator to map <u>an internal hierarchy of</u> the first implementation of the simulation design to <u>an internal hierarchy of</u> the second implementation of the simulation design, and

    wherein the comparison result is used to debug at least one selected from [[the]] <u>a</u> group of the simulation design and the test simulator, by correcting and displaying an error detected in the comparison result.

2. (Previously Presented) The system of claim 1 further comprising:

    a golden data repository storing the golden data; and

    a compiler configured to generate the simulation image by compiling the simulation design and user data.

3. (Original) The system of claim 1, wherein comparing the portion of the golden data to the portion of the test data occurs dynamically.

4. (Original) The system of claim 3 further comprising:

    a buffer to store the golden data.

5. (Original) The system of claim 4, wherein the comparator is configured to wait to compare the portion of the golden data to the portion of the test data until after the golden data is stored in the buffer.

6. (Original) The system of claim 5, wherein the test simulator and the reference simulator execute the simulation image in lockstep.

7. (Previously Presented) The system of claim 1, wherein user data is obtained before the test simulator has completed executing the simulation image.

8. (Previously Presented) The system of claim 7, wherein user data is obtained while the test simulator is halted.

9. – 10. (Canceled)

11. (Currently Amended) A method of evaluating a simulation design comprising:

    executing a simulation image on a reference simulator to obtain golden data, wherein the simulation image is ~~obtaining~~ obtained by compiling the simulation design;

    executing the simulation image on a test simulator to obtain test data, wherein the test simulator is associated with a first implementation of the simulation design and the reference simulator is associated with a second implementation of the simulation design;

    selecting a portion of the golden data and a portion of the test data; and

    comparing the selected portion of the golden data to the selected portion of the test data to obtain a comparison result,

    wherein user data is used to select the portion of the golden data and the portion of the test data, wherein the user data comprises a plurality of mapping rules used to map an internal hierarchy of the first implementation of the simulation design to an internal hierarchy of the second implementation of the simulation design, and

    wherein the comparison result is used to debug at least one selected from a [[the]] group of the simulation design and the test simulator, by correcting and displaying an error detected in the comparison result.

12. – 14. (Canceled)

15. (Original) The method of claim 11 further comprising:

    storing the golden data in a golden data repository.

16. (Original) The method of claim 11, wherein the step of selecting a portion of the golden data is performed dynamically.

17. (Original) The method of claim 16, wherein the step of executing the simulation image on the test simulator and the step of executing the simulation image on the reference simulator is performed in lockstep.

18. (Original) The method of claim 11, wherein the step of comparing the selected golden data to the selected test data waits on storing the golden data in a buffer.

19. (Original) The method of claim 11, wherein the step of selecting a portion of the test data is performed dynamically.

20. (Canceled)

21. (Previously Presented) The method of claim 11, wherein user data is obtained during the step of executing the simulation image on the test simulator.

22. (Previously Presented) The method of claim 21, wherein the step of executing the simulation image is halted to obtain user data.

23. (Previously Presented) The method of claim 20, wherein user data comprises a mapping rule to map an implementation of the simulation design for the test simulator to an implementation of the simulation design for the reference simulator.

24. (Original) The method of claim 11, wherein the step of comparing the selected golden data to the selected test data is performed before completing the step of executing the simulation image on the test simulator.

25. (Currently Amended) A computer system for evaluating a simulation design comprising:

    a processor;

    a memory;

    a storage device; and

software instructions stored in the memory for enabling the computer system to:

execute a simulation image on a reference simulator to obtain golden data, wherein the simulation image is ~~obtaining~~ obtained by compiling the simulation design;

execute the simulation image on a test simulator to obtain test data, wherein the test simulator is associated with a first implementation of the simulation design and the reference simulator is associated with a second implementation of the simulation design;

select a portion of the golden data and a portion of the test data; and

compare the selected portion of the golden data to the selected portion of the test data to obtain a comparison result,

wherein user data is used to select the portion of the golden data and the portion of the test data, wherein the user data comprises a plurality of mapping rules used to map <u>an internal hierarchy of</u> the first implementation of the simulation design to <u>an internal hierarchy of</u> the second implementation of the simulation design, and

wherein the comparison result is used to debug at least one selected from <u>a</u> [[the]] group of the simulation design and the test simulator, by correcting and displaying an error detected in the comparison result.

26. (Canceled)

27. (Canceled)

28. (Currently Amended) An apparatus for evaluating a simulation design comprising:

means for executing a simulation image on a reference simulator to obtain golden data, wherein the simulation image is ~~obtaining~~ obtained by compiling the simulation design;

means for executing the simulation image on a test simulator to obtain test data, wherein the test simulator is associated with a first implementation of the simulation design and the reference simulator is associated with a second implementation of the simulation design;

means for selecting a portion of the golden data and a portion of the test data; and

means for comparing the selected portion of the golden data to the selected portion of the
test data to obtain a comparison result,

wherein user data is used to select the portion of the golden data and the portion of the
test data, wherein the user data comprises a plurality of mapping rules used to
map an internal hierarchy of the first implementation of the simulation design to
an internal hierarchy of the second implementation of the simulation design, and

wherein the comparison result is used to debug at least one selected from a [[the]] group
consisting of the simulation design and the test simulator, by correcting and
displaying an error detected in the comparison result.

29. – 30. (Canceled)